

CLAIMS

What the invention claimed is

1. A method for testing a sample from a person, the method comprising:

obtaining a fecal sample from a person;

determining whether lactoferrin is present in the sample; and

if so, determining whether anti-*Saccharomyces cerevisiae* antibodies (ASCA) and anti-neutrophil cytoplasmic antibodies (ANCA) are present in the sample.
2. The method of claim 1, wherein the presence of elevated lactoferrin is used to aid in the diagnosis of inflammatory bowel disease.
3. The method of claim 2, wherein the absence of elevated lactoferrin is used to aid in the diagnosis of irritable bowel syndrome.
4. The method of claim 3, wherein if the sample contains anti-neutrophil cytoplasmic antibodies, a diagnosis of ulcerative colitis may be substantially concluded.
5. The method of claim 4, wherein if the sample contains anti-*Saccharomyces cerevisiae* antibodies a diagnosis of Crohn's disease may be substantially concluded.

6. The method of claim 3, wherein the presence of anti-neutrophil cytoplasmic antibodies is used to aid in the differentiation of ulcerative colitis from Crohn's disease.

7. The method of claim 4, wherein the presence of anti-*Saccharomyces cerevisiae* antibodies is used to aid in the differentiation of Crohn's disease from ulcerative colitis.

8. The method of claim 1, wherein the lactoferrin, anti-*Saccharomyces cerevisiae* antibodies and anti-neutrophil cytoplasmic antibodies are measured using one of enzyme-linked immunoassays, lateral flow membrane tests and immunoassays utilizing antibodies or capturing fragments.

9. The method of claim 1, wherein the presence of lactoferrin is measured determined by a qualitative ELISA.

10. The method of claim 1, wherein the presence of lactoferrin is measured quantitatively.

11. The method of claim 1, further comprising:
diluting the sample.

12. The method of claim 11, further comprising:
contacting the sample with immobilized polyclonal antibodies to endogenous lactoferrin to create a treated sample.

13. The method of claim 12, further comprising:

contacting said treated sample with enzyme-linked polyclonal antibodies to create a readable sample.

14. The method of claim 13, further comprising:
determining the optical density of said readable sample at 450 nm.
15. The method of claim 14, further comprising:
generating a purified lactoferrin standard curve.
16. The method of claim 15, further comprising:
comparing said optical density of said readable sample to said standard curve to determine the concentration of endogenous lactoferrin in said the sample.
17. The method of claim 11, further comprising:
contacting the sample with antigens of *Saccharomyces cerevisiae* to create a treated sample.
18. The method of claim 17, further comprising:
contacting the treated sample with polyvalent antibodies to human immunoglobulin conjugated to an enzyme to create a readable sample.
19. The method of claim 18, further comprising:
determining the optical density of the readable sample.
20. The method of claim 11, further comprising:

contacting the sample with neutrophil cytoplasmic antigens to create a treated sample.

21. The method of claim 20, further comprising:

contacting the treated sample with polyvalent antibodies to human immunoglobulin to create a readable sample.

22. The method of claim 21, further comprising:

determining an optical density of the readable sample at 450 nm.

23. The method of claim 22, wherein the presence of anti-neutrophil cytoplasmic antibodies is used to aid in the differentiation of ulcerative colitis from Crohn's disease and other gastrointestinal illnesses.

24. A method for distinguishing inflammatory bowel disease from irritable bowel syndrome and for differentiating ulcerative colitis from Crohn's disease, the method comprising:

obtaining a sample from a person;

determining whether lactoferrin is present in the sample;

if so, determining anti-*Saccharomyces cerevisiae* antibodies (ASCA) and anti-neutrophil cytoplasmic antibodies (ANCA) are present in the sample,

diagnosing the person with irritable bowel syndrome if elevated lactoferrin is not present in the sample;

diagnosing the person with inflammatory bowel disease if lactoferrin is present in the sample;

diagnosing the person with Crohn's disease if anti-*Saccharomyces cerevisiae* antibodies are present in the sample; and

diagnosing the person with ulcerative colitis if anti-neutrophil cytoplasmic antibodies are present in the sample.

25. The method of claim 24, wherein the sample is feces.

26. The method of claim 24, wherein the sample is one of whole blood, serum, plasma, saliva, mucosal secretions, bodily fluid and bodily tissue.

27. The method of claim 24, wherein if lactoferrin is present in the sample, monitoring the person for changing levels of lactoferrin as an indicator for the effectiveness of medical therapy.

28. A kit for testing a fecal sample from a person to be diagnosed, the kit comprising:

a plurality of microassay plates, wherein at least one plate contains immobilized polyclonal antibodies to human lactoferrin, at least one plate contains neutrophil cytoplasmic antigens and at least one plate contains antigen of *Saccharomyces cerevisiae*;

enzyme-linked polyclonal antibody to human lactoferrin;

polyvalent antibodies to human immunoglobulin; and

enzyme substrate for color development.

29. The kit as recited in claim 28, further comprising:

a stop solution for quenching the reaction.